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**DIVISION OF AIR AND WATER QUALITY**

September 18, 2000

Mr. Harry Noah  
American Reclamation Group, LLC  
425 G. Street, Suite 713  
Anchorage, Alaska 99501

**Certified Mail #7099 3220 0003 7621 8197**  
**Return Receipt Requested**

Re: ADEC Waste Disposal Permit No. 0031-DB008

Dear Mr. Noah:

The Department of Environmental Conservation has completed its review of your request for the above referenced waste disposal permit and is issuing ADEC Waste Disposal Permit 0031-DB008. The permit will allow the management and disposal of a maximum of 7,000,000 gallons per acre of treated non-domestic wastewater from a heap leach gold recovery facility at the Illinois Creek Mine, Latitude 64° 02.42'N. Longitude 157° 49.71'W. The discharge is to a land application area with eventual drainage to the groundwater.

Please review the conditions and stipulations in this permit and ensure they are all understood. This permit is effective upon issuance and expires May 30, 2005. This State of Alaska Waste Discharge Permit is being issued in accordance with AS 46 and 18 AAC 15.

Department regulations provide that if you disagree with this decision you may request an adjudicatory hearing in accordance with 18 AAC 15.200-910. The request should be mailed to the Commissioner, Alaska Department of Environmental Conservation, 410 Willoughby Avenue, Suite#105, Juneau, Alaska 99801-1795, by certified mail, return receipt requested. A copy of the request shall also be sent to the undersigned. Failure to submit a request within thirty days of service of this letter shall constitute a waiver of your right to administrative review of the decision. In addition, any other person who disagrees with this decision may request an adjudicatory hearing within thirty days of service of the enclosed permit. Any hearing granted will be limited to issues related to the issuance of this permit.

Sincerely,

**SIGNATURE ON FILE**

William D. McGee  
Program Manager  
Water Discharge Permits

841.45.001

cc: Jack Winters, ADF&G/Fairbanks  
Steve McGroarty, ADNR/Fairbanks  
Dick LeFebvre, ADNR/Anchorage  
William Schaff, USFWS/McGrath  
Steven Borell, AMA/Anchorage

Amy Crook, CPP/Juneau  
Cameron Leonard, AG/Fairbanks

*Clean Air, Clean Water*

**STATE OF ALASKA  
DEPT. OF ENVIRONMENTAL CONSERVATION  
DIVISION OF AIR AND WATER QUALITY  
610 UNIVERSITY AVENUE  
FAIRBANKS, AK 99709-3643**

Permit # 0031-DB008

Date Issued: May 30, 2000

This Waste Disposal Permit is issued to American Reclamation Group, LLC., 425 G. Street, Anchorage, Alaska 99501, for the management and disposal of treated wastewater as defined in Appendix A, from a heap leach gold recovery facility at the Illinois Creek Mine, Latitude: 64° 02.42' N. Longitude: 157° 49.71' W. This permit is subject to the conditions and stipulations contained in Appendices A through C, which are incorporated herein by reference.

This permit is issued under the provisions of Alaska Statute 46.03, and the Alaska Administrative Code, as amended or revised, and other applicable state laws and regulations.

This permit is effective May 30, 2000 and expires May 30, 2005. It may be terminated or modified in accordance with AS 46.03.120.

**SIGNATURE ON FILE**

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William D. McGee  
Program Manager

## APPENDIX A

### 1 SPECIFIC PERMIT CONDITIONS

#### 1.1 Introduction

- 1.1.1 This permit covers Alaska Department of Environmental Conservation (ADEC) requirements for the protection of water quality in association with the treatment and land application of water from the Illinois Creek Mine heap leach pad.
- 1.1.2 In addition to the stipulations in this permit, the permittee shall adhere to 18 AAC 60 *Solid Waste Management Regulations* as applicable, 18 AAC 72, *Wastewater Disposal Regulations*, 18 AAC 70 *Alaska Water Quality Standards* and an *Illinois Creek Closure Plan* as approved by the ADEC Project Manager. This permit will take precedence if there is a conflict between the contents of this permit and the contents of the approved application or an approved plan, unless otherwise decided in writing by the ADEC project manager.
- 1.1.3 During the period beginning on the effective date of this permit and lasting through the expiration date, in conformance with the stipulations in this permit, the permittee is authorized to dispose of wastes as specified in this permit at the Illinois Creek Mine Project.

#### 1.2 General Limitations

- 1.2.1 Waste materials authorized to be land applied under this permit are limited to treated wastewater from the heap leach facility which meets the limits in the following table:

Parameter	Concentration (mg/L)
Al	0.1
As	8.12
Cd	0.001
Cr	0.12
Cu	3.55
Fe	0.1
Hg	0.014
Mn	0.05
Ni	0.3
Pb	0.003
Se	0.005
Ag	0.58
Zn	0.047
WAD Cyanide	0.2
Maximum loading to land	7 million gallons per acre

These limits are required to ensure that the Water Quality Standards are met in the ground water. The first batch of treated water must be sampled each season, and the limits in the above table met, before the treated water may be applied to the land. Subsequent batches in the same season must be sampled for WAD Cyanide, and meet the 0.2 mg/L limit, to

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ensure that the treatment process remains effective before discharge.

- 1.2.4 Activities at the site which will cause a greater amount of waste material to be treated and disposed of are prohibited without the prior written approval of the ADEC Project Manager.
- 1.2.5 RCRA Subtitle C wastes are not authorized for disposal under this permit.
- 1.2.6 The Department may set or modify permit conditions based on monitoring results or changes in facility or treatment processes, after consultation with the permittee, in accordance with permit amendment or modification.
- 1.2.5 Additional monitoring locations, schedule, and constituents are listed in Appendix C. The water quality of ground water samples taken from the ground water monitoring wells shown in Appendix C must meet the applicable limits of the State's Water Quality Standards, 18 AAC 70, at all times, unless otherwise approved in writing by the ADEC Project Manager.
- 1.2.6 A sample from any ground water well or surface water monitoring location that has a positive result for cyanide concentration shall be reported to the Department as soon as possible, but no later than the end of the next working day. Resampling for sample confirmation shall be performed as soon as practicable.
- 1.2.7 An action plan will be required when analysis of the monitoring data demonstrates a significant increase in the concentration of any of the monitoring parameters. The action plan shall provide recommendations for monitoring and/or operational changes as a result of the significant increase. The action plan shall also contain the rationale for each recommended change, or for any recommendation of no changes. The Department may require changes in monitoring and/or operations at the project, after consultation with the permittee, based on monitoring results.
- 1.2.8 Any area of open water, or soil in the land application area, must not become an attractive area for waterfowl or shorebirds. All deaths must be reported to the Department and to the appropriate state and federal agencies.

### **1.3 Site Development**

- 1.3.1 The permittee must provide secondary containment for all process piping, chemical mix tanks, and leaching facilities containing hazardous or toxic materials. Secondary containment is considered to be 110% of the largest tank within one containment. The permittee must design and install secondary containment structures in a manner that ensures that waste material or leachate will not escape from the structures. Facilities to prevent such discharges shall be maintained in good working condition at all times by the permittee.
- 1.3.2 The permittee must sever or remove any piping used originally to fill the freshwater pond to prevent any chance of water from the treatment process siphoning or otherwise reaching Illinois Creek.
- 1.3.3 The permittee must notify the ADEC Project Manager in writing at least 15 days before the introduction of a new chemical into the process.

- 1.3.4 The permittee must notify the ADEC Project Manager in writing at least 15 days before the introduction of process solutions into an existing process which has been significantly modified. A significant modification is one that increases the amount of waste that will be produced, will result in new chemicals being added to the process, or changes the characteristics of the waste.
- 1.3.5 No surface runoff is allowed from the land application site.
- 1.3.6 Run on water shall be diverted away from the land application site.

#### **1.4 Monitoring**

- 1.4.1 Prior to initiation of land application at the facility the permittee shall submit a consolidated monitoring plan to include the following:
  - 1.4.1.1 Hourly visual monitoring of the application rate to insure no runoff.
  - 1.4.1.2 Daily visual monitoring of the facility for signs of damage or potential damage from settlement, ponding, leakage, erosion or operations at the site.
  - 1.4.1.3 An analysis of the surface water and groundwater sample numbers and frequencies which will ensure that sample results are statistically valid.
  - 1.4.1.4 A fluid management monitoring plan including an accounting of water stored in the trench, water stored in the heap, water in the process system, and treated water applied to the land.
- 1.4.2 Groundwater and surface water sampling locations, frequency of sampling and parameters sampled for at each location shall be in conformance with Appendix C.
- 1.4.3 Monitoring shall be in accordance with 18 AAC 60.800 through 18 AAC 60.860, Solid Waste Management Regulations unless otherwise approved by the Department.
- 1.4.4 The Department may modify monitoring requirements, after consultation with the permittee, in response to trends showing changes in the concentration of parameters being monitored.
- 1.4.5 The permittee shall establish and follow monitoring procedures as follows:
  - 1.4.5.1 Ensure samples are analyzed by a laboratory that follows EPA-approved procedures, quality control requirements, reporting, and documentation procedures. A quality assurance plan, containing quality control procedures and criteria, analytical methods, detection limits and reporting requirements pertinent to the permit holder's samples shall be submitted to the Department for approval. This information can be incorporated into the project's environmental monitoring plan, but must be updated annually and whenever changes in methods or laboratories occur.

- 1.4.5.2 Analyze collected samples using methods set out in EPA-600/4-79-020 Methods for Chemical Analysis of Water and Wastes; EPA-600/4-82-057 Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater; Standard Methods for the Examination of Water and Wastewater (edition in effect at the time of sampling); or other methods approved by the Department. Each result must be accompanied by a reference, such as the method number, to the method that was used to perform the analysis.
- 1.4.6 If the permittee monitors any influent, effluent, receiving water, air, or solid waste characteristic in addition to those identified in this permit, or more frequently than required, the results of such monitoring shall be available for inspection by the Commissioner or his representative at the project site, or other location proposed by the permittee and agreed upon by the ADEC Project Manager. The permittee shall provide copies of the results to the Department upon request.

## **1.5 Reporting**

- 1.5.1 Submit to the Department quarterly monitoring reports, for a total of four quarterly reports each year, and one annual monitoring report, summarizing the inspection and monitoring results set out in this permit. The final quarterly report may be included in the annual report provided that quarterly data is displayed clearly. All quarterly reports will be due on the 30th day of the month following the quarter. Copies of the laboratory reports should be submitted with the quarterly reports for the first year of data collection and analysis, or for the first year after a change of the laboratory is made. An annual meeting with the Department will be held in conjunction with the Department of Natural Resources in which the annual report will be presented to the agencies. The annual report shall be available to the Department two weeks prior to the annual meeting.
- 1.5.2 A copy of the quarterly monitoring report shall be submitted to the Alaska Department of Fish and Game, Habitat Division, Fairbanks office at the time that the report is submitted to the Department.
- 1.5.3 Quarterly and annual reports, shall include information necessary to determine data validity and to determine data variations, significant trends, and any exceedance of standards or criteria. All records and information which validate the Quality Assurance Plan, resulting from the monitoring activities required by this permit, including but not limited to all records of analyses performed, and calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation, shall be retained in Alaska for observation by the Department for three years. Upon request from the ADEC Project Manager, the permittee shall submit certified copies of such records. The Department may, at its discretion, perform field and laboratory audits of monitoring activities.
- 1.5.4 The permittee shall maintain an updated plan of operations as required by ADNR showing site use and development plans, and shall submit an updated copy or amendment to the Department showing current status with the annual report.

## **1.6 Corrective Actions**

- 1.6.1 The permittee shall comply with 40 CFR 258.53 (g)-(I), as applicable, if the visual monitoring program discovers damage or potential damage to the facility that can lead to water quality

violations.

- 1.6.2 The permittee shall comply with 40 CFR 258.53 (g)-(I), as applicable, if a change in water quality in any of the surface water or groundwater sampling locations is detected.
- 1.6.3 If a violation of water quality standards is detected in surface water or groundwater, or if an exceedance of the limits set out in this permit is detected, the permittee shall:
  - 1.6.3.1 Verbally notify the Department within one working day.
  - 1.6.3.2 Determine the extent of the exceedance.
  - 1.6.3.3 In consultation with the Department and documented in writing, implement a plan to determine the cause and/or source of the exceedance.
  - 1.6.3.4 Submit to the Department, within 10 working days of discovering the exceedance, a plan for corrective actions to prevent adverse environmental impacts and further exceedances of applicable water quality standards or permit limits.
  - 1.6.3.5 Implement the corrective action plan as approved by the Department.

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## APPENDIX B

### 2 GENERAL PERMIT CONDITIONS

- 2.1 ACCESS AND INSPECTION. The permittee shall allow the Commissioner or authorized representative access to the permitted facilities at reasonable times to conduct scheduled or unscheduled inspections or tests to determine compliance with this permit and with state law.
- 2.2 INFORMATION ACCESS. Except where protected from disclosure by applicable State or Federal law, all records and reports submitted in accordance with the terms of this permit shall be available for public inspection at the State of Alaska Department of Environmental Conservation, Fairbanks, Alaska.
- 2.3 CIVIL AND CRIMINAL LIABILITY. Nothing in this permit shall relieve the permittee from any potential civil or criminal liability for noncompliance with the permit or with applicable law.
- 2.4 AVAILABILITY. The permittee shall post or maintain a copy of this permit available to the public at the facility.
- 2.5 ADVERSE IMPACT. The permittee shall take all necessary means to minimize any adverse impacts to the receiving waters or lands resulting from noncompliance with any condition specified in this permit, including any additional monitoring needed to determine the nature and impact of the noncomplying activity. The permittee shall cleanup and restore all areas adversely impacted by the noncompliance.
- 2.6 CULTURAL OR PALEONTOLOGICAL RESOURCES. Should cultural or paleontological resources be discovered as a result of this activity, work which would disturb such resources is to be stopped, and the State Historic Preservation Office, Division of Parks and Outdoor Recreation, Department of Natural Resources (907-465-4563), is to be notified promptly.
- 2.7 APPLICATIONS FOR RENEWAL. In accordance with 18 AAC 15.100 (d), applications for renewal or amendment of this permit must be made no later than 30 days before the expiration date of the permit or the planned effective date of the amendment.
- 2.8 OTHER LEGAL OBLIGATIONS. This permit does not relieve the permittee from the duty to obtain any other necessary permits from the Department or from other local, state, or federal agencies, and to comply with the requirements contained in any such permits. All activities conducted and all plans implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws.



- 2.9 TRANSFER OF OWNERSHIP In the event of any change in control or ownership of the permitted facility, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the ADEC Project Manager. The original permittee remains responsible for permit compliance unless and until the succeeding owner or controller agrees in writing to assume such responsibility, and the Department approves assignment of the permit. The Department will not unreasonably withhold such approval.

As between the State and the permittee, no transfer of this permit shall relieve the permittee of any liability arising out of operations conducted prior to such transfer, regardless of whether such liability accrues before or after such transfer.

- 2.10 POLLUTION PREVENTION In order to prevent and minimize present and future pollution, when making management decisions that effect waste generation, the permittee shall consider the following order of priority options as outlined in AS 46.06.021:

- waste source reduction,
- recycling of waste,
- waste treatment, and
- waste disposal.

## **APPENDIX C**

### **3 RECEIVING WATER MONITORING**

#### **3.1 WATER MONITORING LOCATIONS**

#### **3.2 WATER QUALITY MONITORING SCHEDULE**

#### **3.3 CONSTITUENTS TO BE MONITORED**